Oct. 3, 2019

Public Service Commission
211 Sower Boulevard, Post Office Box 615
Frankfort, KY 40602
RE: Written Comments on PSC Case Number 2019-00256



Dear Public Service Commission,

Thank you for inviting comments from members of the public in case number 2019-00256. I appreciate you taking a thoughtful approach to the implementation of SB100 as your decisions about this issue are extremely important. The monopoly status of our electric utilities means that the public relies on the PSC to stand in for the market forces that would naturally discipline utility companies and protect the public interest. Further, since electric utilities provide an essential public service that neither individuals nor businesses can live without, the role of the PSC in protecting the public interest is indeed profound. I urge you to consider the following points in making your decisions about SB100.

**I. Decisions Should Be Based on a Comprehensive Cost-Benefit Analysis of Rooftop Solar and Net Metering.** I ask the PSC to:

**A. Include a comprehensive analysis of the benefits that rooftop solar provides to the utilities, ratepayers, and society.** Such benefits include avoided energy costs, reduced line losses, avoided capital and capacity investments, and reduced financial risks from volatile fuel prices. Many also argue that valuation of rooftop solar should include broader benefits including effects on economic development, potential for increased grid resilience, and avoided societal costs of greenhouse gas emissions. Many states have included some or all of the variables above, in addition to costs to utilities, in studies of the value of solar and the rate impacts of net metering. Two meta-analyses of these studies across states are ICF (2018) *Review of Recent Cost-Benefit Studies Related to Net Metering and Distributed Solar,* and Weissman and Fanshaw (2016) *Shining Rewards: The value of rooftop solar for consumers and society.*

The ICF (2018) analysis cites nine studies that report the rate impact of net metering. Of these, seven showed either no or minimal cost shifting, or showed that the benefits exceed the costs. The Weissman and Fanshaw (2016) analysis reports retail residential electricity rates compared to the calculated values of solar, finding that in twelve of the 16 studies reviewed, the values of solar exceeded electricity rates, indicating that net metering can provide net benefit to rate payers. Example studies that are reported in these two meta-analyses are listed at the end of this letter.

**B. Consider the small market penetration of rooftop solar in Kentucky.** Research shows that rate impacts of net metering are negligible until market penetration gets far higher than that found in Kentucky, and in fact higher than KY's current cap (Barbose, Lawrence Berkeley Lab, 2018, *Putting the Potential Rate Impacts of Net Metering into Context;* Kentucky Resources Council, 2018, *The Economic Impact On Kentucky Residential Customers Of Energy "Sold" To Utilities From Net Metering Solar Customers in 2016* ; Lazar, 2016, *Electricity Regulation in the US: A Guide. Second Edition,* pg 78*).*

I note that in the recent KU/LG& E rate case, the utilities implied there was cost shifting as a result of net metering. However, they did not present a quantitative estimate of any cost shifting currently taking place.

**C. Look at independent studies, and do not only consider information and points of view presented by utility company lobbyists.** I note that the "Consumer Energy Alliance" (CEA) gave a presentation to the KY Joint Natural Resources Committee. The CEA purports to be a consumer group, calling itself *The Voice of The Energy Consumer*, but in fact this organization is an energy industry public relations organization, supported by energy and energy infrastructure companies (www.sourcewatch.org; www.energyandpolicy.org). It is disturbing that such "front groups", who misrepresent themselves, are sanctioned in our legislature (the "American Consumer Institute" is another example.)

Related to this, I note that in their recent rate case, KU/LGE made claims about which of their costs are fixed and about how fixed costs should be recovered. These claims are arguable, particularly considering both the short and long term. (Rabago & Valova, 2018, *Revisiting Bonbright's Principles of Public Utility Rates in a DER World*; Watkins, 2019, *Direct Testimony On Behalf Of The Kentucky Office Of The Attorney General Case No. 2018-00294 & Case No. 2018-00295*). I urge the PSC to consider multiple perspectives on this issue.

**D. Commission a Kentucky-based independent study with input from all stakeholders.** Now that so many other states have completed value of solar and cost-benefit analyses, we have many good methodologies illustrated. (Both meta-analyses cited above detail the methods used in the studies reviewed). Before implementing SB 100, I urge the PSC to commission its own study, using an independent contractor, and to consider input from all stakeholders in choosing the variables to include in the study.

**II. Decisions Should be Informed by Appropriate Granting of Intervenor Status.**

Stakeholders who will be affected by the PSC's decisions in regard to SB100, must be allowed to intervene in the upcoming rate cases. These stakeholders include solar installers, non- profit organizations that serve low-income customers, and environmental advocates. The unusual exclusion of low-income and environmental advocates in the KU/LGE 2018 rate case was puzzling. It is not true that the AG's office can adequately represent the interests of these groups. Given the PSC's responsibilities in regard to this essential public service, and the PSC's role as a surrogate for competitive market forces, it is imperative that the PSC get the relevant data and perspectives from all key stakeholders.

**III. Decisions Should Consider the Negative Effect of a Reduced Compensation Rate on Access to, and Investment in, Clean Energy and Distributed Energy.**

A substantial reduction in the compensation to rooftop solar customers for excess energy fed into the grid would obviously increase bills and lengthen the time it takes to recover the substantial investment in solar panels. This would make rooftop solar unaffordable for many residential customers, non-profits, and small businesses. **There**

**are several reasons why the PSC should consider these effects of the compensation rate:**

**A. Rates should be fair, should not be discriminate against self generators, and should allow equitable access to distributed energy.** The existing net metering policy (prior to SB 100) allows access to rooftop solar by middle-income residents, small businesses, and non-profit organizations that serve low-income customers. This policy is an important component of equitable access to the economic benefits of solar and to a potentially preferred energy source. Given the lack of evidence that cost-shifting to non-solar customers is occurring in Kentucky (as cited above, existing evidence says any cost-shifting is minimal at most), a substantial reduction in compensation for energy fed into the grid would in fact penalize people who choose solar energy, and penalize lower income customers who would be prevented access to this resource.

**B. Rates should not negatively impact economic development in Kentucky.** In their most recent rate case, KU and LGE justified their request for relatively low rate increases for commercial customers on the grounds that higher rates for these customers would discourage economic development in Kentucky. Since economic development is being used as a factor in rate decisions, I urge the PSC to consider how a reduced compensation rate will affect access to renewable energy, and how this will in turn affect economic development in the state:

1. Company decisions to locate in Kentucky: Companies across the US are responding to the fact that the majority of Americans are worried about climate change and pollution, and support clean energy. Thus, they may not only want renewable energy for their businesses, but also want it for their employees (www.fool.com/investing/2018/03/18/why-corporate-america-loves-renewable-energy.aspx; www.climatecommunication.yale.edu/visualizations-data/ycom-us/.) Further, companies may want their employees to live in a healthy environment. Thus residential access to clean energy may be an important factor in business location decisions.

2. With the existing net-metering policy small business can save money by installing rooftop solar, and can attract customers with this pro-social behavior. A significantly lowered compensation rate for excess energy fed into the grid would eliminate these benefits for small businesses in Kentucky and may make Kentucky less attractive to future small business development.

3. Kentucky can benefit from a thriving solar industry. Without fair compensation for rooftop solar, solar installation businesses may not be viable in Kentucky, and the state would lose the good jobs these businesses provide. Solar installation is the fastest growing occupation in the country (www.bls.gov/emp/tables/fastest-growing-occupations.htm.) Rate policies should not limit Kentuckians access to this growing component of the national economy.

**C. Rates should discourage wasteful use of energy**. Solar energy is a viable resource in Kentucky and rooftop solar reduces use of non-renewable resources. The PSC should ensure that rate policies do not discourage investment in rooftop solar, or otherwise discourage efficient use of resources. (Many believe that the recent 32%

percent increase in the "basic service charge" already discourages energy efficiency). Discouraging wasteful use of resources is a key element of rate design and this is especially important in view of the global crisis in climate change.

**D. Rates should consider public safety.** Reducing access to clean energy can have a significant impact on public safety in Kentucky. One of the PSC's regulatory responsibilities is to ensure that our utility service is safe. If a fuel source endangers our health it is not safe. Fossil fuels directly endanger our health (www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/hidden-cost-of-fossils), and their effect on climate change further endangers our health (www.cdc.gov/climateandhealth/effects/default.htm; nca2014.globalchange.gov/report/sectors/human-health.) Rate policies should not advantage unhealthy fuel sources, and should not discourage use of energy sources that protect our health.

**E. The PSC should protect consumer choice.** While some utilities in Kentucky, such as KU, offer the option to buy "solar shares", the long run costs for this (which are exceedingly difficult to understand from the KU website) are higher than rooftop solar, and solar shares do not offer the benefits of distributed generation that many customers believe are important. If the price for rooftop solar becomes out of reach due to pressure from the utility companies, and if rooftop solar businesses in Kentucky do not survive, then that choice is no longer available to customers. Given Kentuckians widely-held concerns about climate change and fossil fuel pollution, and their support for pro-solar policies (climatecommunication.yale.edu/visualizations-data/ycom-us/ see Kentucky data), a competitive free market might well advantage renewable, safe, clean energy. We need the PSC to stand in for market forces, and make sure that monopoly utilities do not abuse their power. Rates should not be used as an anti-competitive tool.

Thank you for your consideration of these comments,

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**Examples studies reviewed in the two meta analyses cited above:**

•Beach, R., and P. McGuire. 2017. *The Benefits and Costs of Net Metering Solar Distributed Generation on the System of Entergy Arkansas, Inc.* Crossborder Energy.

•Stanton, E.; J. Daniel; T. Vitolo; P. Knight; D. White; and G. Keith. 2014. *Net Metering in Mississippi: Costs, Benefits, and Policy Considerations.* Cambridge, MA: Synapse Energy Economics, Inc.

•Vermont Public Service Department (PSD). 2014. *Evaluation of Net Metering in Vermont Conducted Pursuant to Act 99 of 2014.*

•Whited, M.; A. Horowitz; T. Vitolo; W. Ong; and T. Woolf. 2017. *Distributed Solar in the District of Columbia: Policy Options, Potential, Value of Solar, and Cost-Shifting.* Cambridge, MA: Synapse Energy Economics, Inc.

•Norris, B.; P. Gruenhagen; R. Grace; P. Yuen; R. Perez; and K. Rabago. 2015. *Maine Distributed Solar Valuation Study.* Prepared for the Maine Public Utilities Commission by Clean Power Research, Sustainable Energy Advantage, LLC, and Pace Law School Energy and Climate Center.

•Norris, B. 2014. *Value of Solar in Utah.* Clean Power Research.

•Xcel Energy, submission to Minnesota PUC at Docket No. E002/M-13-867, *VOS Calculation Compliance*, 2 March 2015
https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={E8E3FEFC-5283-48BC-B712-468E583C28D7}&documentTitle=20153-107860-01